

The 18th ACM/IFIP/USENIX Middleware Conference
December 11 – 15, 2017 Las Vegas, Nevada, USA



Middleware 2017 Preliminary Call for Papers

2017.middleware-conference.org

The annual ACM/IFIP/USENIX Middleware conference is a major forum for the discussion of innovations and recent scientific advances of middleware systems with a focus on the design, implementation, deployment, and evaluation of distributed systems, platforms and architectures for computing, storage, and communication. Highlights of the conference will include a high quality single-track technical program, invited speakers, an industrial track, panel discussions involving academic and industry leaders, poster and demonstration presentations, a doctoral symposium, tutorials and workshops.

Topics: Original submissions of research papers on a diversity of topics are sought, particularly those identifying new research directions. The topics of the conference include, but are not limited to:

- **Platforms and Usage Models:** Cloud computing and data centres; Data-intensive computing (big data) and data analytics; Mobile devices and services; Ubiquitous and pervasive computing; Networking, network function virtualization, software-defined networking; Internet applications and multimedia; Internet-of-Things, cyber-physical systems, smart cities.
- **Systems and Engineering Issues:** Scalability and performance; Reliability and fault tolerance; Consistency, availability, and replication; Security and privacy; Virtualization, auto-scaling, provisioning, and scheduling; Real-time solutions and quality-of-service; Energy- and power-aware techniques.
- **Design Principles and Programming Support:** Programming abstractions and paradigms for middleware; Methodologies and tools for the design, implementation, verification, and evaluation; Event-based, publish/subscribe, and peer-to-peer solutions; Reconfigurable, adaptable, and reflective approaches; Reviews of middleware paradigms, e.g., object models, aspect orientation, etc.

Original papers of three types are sought:

1. **Research Papers:** These papers report original research on the above topics.
2. **Experimentation and Deployment Papers:** These papers describe complete systems, platforms, and/or comprehensive experimental evaluations of alternative designs and solutions to well-known problems. The emphasis during the evaluation of these papers will be less on the novelty and more on the demonstrated usefulness and potential impact of the contributions, the extensive experimentation involved, and the quality and weight of the lessons learned.
3. **Big Ideas Papers:** These are papers that have the potential for opening up new research directions. For such papers, the potential to motivate new research is more important than full experimental evaluation, though some preliminary evidence of the effectiveness of the approach or idea is important.

Submitted papers must have at most **12 pages** of technical content, including text, figures, and appendices, but excluding any number of additional pages for bibliographic references. Note that submissions must be **double-blind**: authors' names must not appear, and authors must make a good faith attempt to anonymize their submissions. Submitted papers must adhere to the formatting instructions of the ACM style, which can be found on the submission page, and should clearly indicate the paper type on the first page. The Middleware 2017 conference proceedings will be published in the ACM Digital Library. The official publication date will be the date the proceedings are made available in the ACM Digital Library which may be up to two weeks prior to the first day of the Middleware conference. Note that the official publication date affects the deadline for any patent filings related to published work.

Important Dates (tentative)

Abstract Submission	May 12, 2017
Paper Submission	May 19, 2017
Notification Due	Aug 23, 2017
Final Version Due	Sept 15, 2017

Core Organizers

Jayaram K. R.	General Co-Chair
Anshul Gandhi	General Co-Chair
Bettina Kemme	Program Co-Chair
Peter Pietzuch	Program Co-Chair